# **ARNAV KUMAR**

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#### **Education**

Nanyang Technological University

Aug 2010 - Jun 2014

• B. Eng. (Hons.) in Computer Science with a GPA of 4.75/5.

- Minor in Business, Specialization in Intelligent Systems (expected).
- Dean's List Academic Year 2012-13
- Awarded **President's Research Scholarship** offered to the top 5% of the cohort. (2011-12)
- Awarded full scholarship covering tuition fees and a living allowance.
- Indian School Certification (ISC) 91%. (A Level Equivalent)
- Indian School Certificate Examination Result (ICSE) 94%. (O Level Equivalent)
- 98% in Computer Science in both ICSE and ISC.

# **Work Experience**

**IBM Corporation** 

**IBM** Corporation

**St. James' School** Graduated in May 2010

Software Engineering Intern May 2013 - Aug 2013 • Developed core components for a mobile port of IBM Security Access Manager for Enterprise Single Sign - On (ISAM-ESSOm) for providing single sign - on capabilities on the iOS platform.

• Built the fully-featured, UIWebView - based embedded browser which provides Web single sign - on capabilities within the App.

• Development – Prototyped new mobile (iOS and Android) solutions aimed at enhancing user experience and security of sensitive user information. Explored and implemented methods of automated form - filling techniques.

 Quality Assurance – Configuration and troubleshooting server side components of a new solution for Privileged Identity Management. Automated the user-creation process during load-testing, reducing time required at this stage by 66%.

### Software Engineering Intern Jun 2012 - Dec 2012

## **Project Work**

**Final Year Project** Aug 2013 - Present

Data Mining Aug 2013 - Oct 2013

Natural Language Processing Aug 2013 - Oct 2013

Software Engineering (II)
Jan 2013 - May 2013

Software Engineering (I) Feb 2012 - May 2012

**Pet Projects** 

- Developing a proof-of-concept game demonstrating interaction with real world objects virtually.
- Interfacing a Kinect, an iPhone, and a projector with a central server to process motion.
- Led a team of 6 to develop an application (with a Django backend) to generate a timeline for the flow of Twitter hashtags across the globe and track local trends.
- Developed an application (with a Java + Flask backend) to summarize and analyse the sentiment of Twitter users about a subjects after extracting descriptive phrases from related tweets.
- Lead developer for dBauggle, an iOS word-game for children with special needs, built using the cocos2d framework.
- Lead developer for P.A.W.S., a pet-centric social network (with a Django backend) for pet agencies and prospective pet owners to interact, start the process of adoption and provide location based services.
- **Pebble Music Tweeter** Pebble Watchapp + companion iOS app using the Twitter API and Pebble SDK to Tweet the currently playing music from the smartwatch.
- **Keepr** iOS app for users to keep track of uncommon objects and trigger memory flashes to recall their last placement. (Work in progress)

#### **Skills and Coursework**

**Relevant Courses** 

 Object Oriented Programming & Data Structures, Software Engineering, Database Systems, Operating Systems, Algorithms, Advanced Algorithms, Artificial Intelligence, Natural Language Processing, Data Mining.

**Technical Skills** 

- Java, Objective-C, Python (& Django framework), Javascript, HTML and others.
- Represented NTU in International Collegiate Programming Competition (ACM-ICPC) Regionals 2011 held in Kuala Lumpur.

#### **Interests and Extra - Curricular Activities**

**Extra - Curricular Activities** 

- **President NTU Open Source Society** Headed the management committee of the special interest club that promotes the hacker culture. (AY2012-13)
- IT (Media) Officer Computer Engineering Club (Student Council of the School) Steered the annual branding initiative, produced and redesigned the School's publication and organised the school's first Hackathon. (AY2012-13)

Interests

- Reading, Writing, Sports (football, rugby).
- Played Rugby competitively for 8 years.
- Member of the NTU Rugby Squad between Sept 2010 and Aug 2011.